A CONCEPTUAL MODEL TO UNDERSTAND THE EFFECTS OF PERCEPTION ON THE CONTINUANCE INTENTION IN FACEBOOK

Shih-Chih Chen[1]
Department of Information Management, Tatung University,
No. 40, Chung-Shan North Road, Section 3, Taipei 104, Taiwan
E-mail: scchendr@gmail.com

Huei-Huang Chen
Department of Information Management, Tatung University,
No. 40, Chung-Shan North Road, Section 3, Taipei 104, Taiwan
E-mail: hhchen@ttu.edu.tw

Mei-Tzu Lin
Department of Information Management, Tatung University,
No. 40, Chung-Shan North Road, Section 3, Taipei 104, Taiwan
E-mail: jula_lin@hotmail.com

Yu-Bei Chen
Department of Information Management, Tatung University,
No. 40, Chung-Shan North Road, Section 3, Taipei 104, Taiwan
E-mail: abei0614@hotmail.com

ABSTRACT

Recently, the social networking applications expand rapidly and attract a lot of users in a short time period. This study attempts to develop a conceptual model to understand the continuance intention in the context of social networking. The conceptual model integrates the post-acceptance model of information system continuance with perceived ease-of-use and perceived usefulness proposed by Bhattacherjee (2001a) and Davis (1989), respectively. In the proposed model, continuance intention is influenced by the relationship quality and information system quality. Additionally, nine propositions are developed based the proposed model and literature review. Finally, conclusions, managerial implications, and future direction of research are also provided.

Keywords: *Post-acceptance Model, Perceived Ease-of-use, Perceived Usefulness, Social Networking*

1. INTRODUCTION

With the coming of Web 2.0 Age, Social Network Services (SNSs) become more and more popular. Social Networks are virtual communities that have been very famous in recent years. Social network Facebook offers a brand-new interpersonal interaction model, and its community members extend the outward social circle that centers on oneself (Mayfield, 2005; Kwon and Wen, 2010). After gradually establish Facebook human context, the usage frequency may rise, and make Facebook become part of people's daily lives. According to the research results, 65% of the users log on Facebook every day, and 85% of the users log on Facebook at least once a week, which shows social network - Facebook - is getting more and more important, and is one of the crucial tools for interpersonal interaction.

Internet has the characteristic of low switching cost, resulting in the fact that users may not be loyal to the website at all. Heskett et al. (1994) claimed that the cost to attract a new customer is five times the cost of maintaining an old one. Users to social network Facebook is similar with "stream of people to stream of money". Bhattacherjee (2001a) remarked that whether the system can be accepted is the vital factor for the system to be adopted by users. However, to see from a long-term angle, whether the system is really accepted has something to do with the fact whether users "continue to use" that system. Therefore, for social networks, it is an issue worthy of investigating currently how the users keep on using the website.

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[1] Corresponding author

The researches aiming at social network service and Facebook in the past probed into the personal factors and the website's characteristics. However, individual differences have been a vital element that impacts on the user acceptance degree, and has influence on new information technology products. In such researches, the age, gender, website using experience of the consumers are all key factors to new information system and technology acceptability. Due to technology readiness is the approach to measure the individual's psychological tendency and personal traits to use new technology or service, this study regards that high or low personal technology readiness is related to willingness of the individual to continuously access social network service.

Based on the above-mentioned research backgrounds and motivations, and with related literature and researches, we will investigate the relationship between technology readiness index of users, and their perception and continuance intention to use Facebook.

2.   Literature Review
2.1 Technology acceptance model
Technology acceptance model (TAM) was proposed by Davis in 1989 (as shown in Figure 1). Based on Fishbein and Ajzen's Theory of Reasoned Action (TRA), it explains the common individual's determinative factors of new information technology acts (Fishbein and Ajzen, 1975). TAM deletes the subjective norm in TRA, and adopts attitudes of predicting common people's intention of behaviors so as to use new information technology. Besides, it adds perceived ease of use and perceived usefulness to act as the determinative factors that influence on people's using attitudes. Furthermore, it integrates different theories to expand the outward variables in order to extend the discussion range of the acceptability degree of other science and technology.
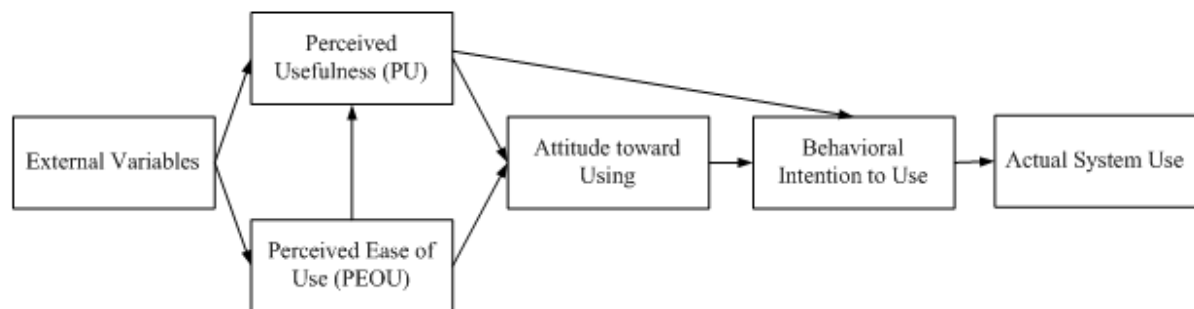

Figure 1: **Technology acceptance model (Davis, 1989)**

2.2 Post-acceptance model
Expectation-Confirmation Theory (ECT) was proposed by Oliver (1980). In the past referential literature regarding the researches on the consumers' behaviors, it was extensively used to evaluate the satisfaction degree and after-sale behaviors (such as repetitive purchases, complaints, and etc) and general service marketing. The main concept is that the consumers will compare the pre-buying expectations with the products' practical performance, and to judge whether they are satisfactory with the products. The satisfaction degree is one of the factors that influences on the consumers to purchase again.

However, Bhattacherjee (2001a) considered that ECT is a controversial issue. Therefore, in order to effectively explain and predict the usage continuance of the system users, he modified ECT to make it match the situation of information system, and proposed post-acceptance model of IS continuance" by the concept that continuance usage intention of system will be influenced by system usage satisfaction and perceived ease of use. Here, satisfaction is influenced by perceived ease of use while confirmation will influence on perceived ease of use.

In the research done by Thong et al. (2006), he thought information technology continuance usage behaviors is determined by the expectations and beliefs of users. As a result, to effectively increase the explanations to continuance usage behaviors, he added users' perceived usefulness and perceived entertainment to Bhattacherjee's (2001) post-acceptance model of IS continuance for people to know mobile network continuance usage behaviors (as shown in Figure 2). The results showed that perceived ease of use, perceived

usefulness, and perceived entertainment has significant impact on satisfaction, while satisfaction, perceived ease of use, perceived usefulness, and perceived entertainment are all remarkable decisive factors of the continuance usage intention.
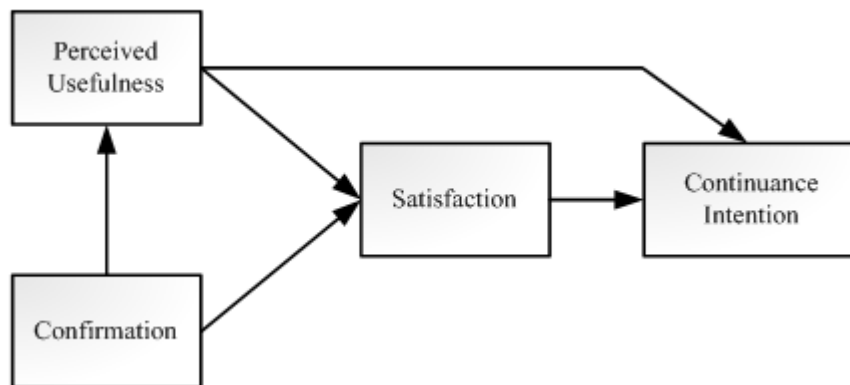

Figure 2: Post-Acceptance Model (Bhattacherjee, 2001)

3.   DEVELOPMENT OF RESEARCH MODEL AND PROPOSITIONS

This research aims to integrate the connection post-acceptance model and technology acceptance model. We construct the research framework as shown in Figure 3. In ECT, it mentioned that expectation before usage and the cognition performance of the system after usage will together influence on users' satisfaction. It also proved that users' "confirmation" will affect "satisfaction" after usage (Bhattacherjee, 2001; Liao et al., 2007; Oliver and Richard, 1980; Roca et al., 2006; Thong et al., 2006). Consequently, this research provides the following hypotheses:

H_1： Users' confirmation of social networking has the significant influence on satisfaction of using social networking.

Users have expectations on certain system before usage, and such expectations influence on the attitudes towards the system and the intention to use it again. On the other hand, after users using the system, they will gender cognitive performance for the system. The gap between such expectations before usage and cognitive performance after usage is proved to have significant influence on perceived usefulness. In addition, researches have proved that the degree of confirmation will have impact on perceived ease of use (Hong et al. 2006; Liao et al., 2007; Roca et al., 2006; Thong et al., 2006). Therefore, this research proposes the following hypotheses:

H_2 ： Users' confirmation of has significant influence on perceived ease-of-use of social networking.
H_3 ： Users' confirmation of social networking has the significant influence on their perceived usefulness of social networking.

Davis (1989) proposed technology acceptance model. He thought perceived usefulness is influenced by perceived ease of use. The higher perceived ease of use is, the higher perceived usefulness will be. The expectation confirmation theory proposed by Oliver (1980) proved perceived ease of use has influence on perceived usefulness as well (Oliver and Richard, 1980). The following hypothesis is thus proposed:

H_4 ： Users' perceived ease-of-use of social networking has the significant influence on their perceived usefulness of social networking.

Related researches also proved that users will have afterward expectation (usefulness and ease of use), and the expectation will influence on users' satisfaction towards the information system (Bhattacherjee, 2001a; Roca et al., 2006). In related literature on post-acceptance model of IS continuance, it has been proved that perceived usefulness strongly relates to satisfaction degree (Bhattacherjee, 2001a; Bhattacherjee, 2001b; Roca et al., 2006; Thong et al., 2006; Chen et al., 2009). The hypotheses are then proposed:

H_5 ： Users' perceived usefulness of social networking has the significant influence on the satisfaction of social networking.

H_6：*Users' perceived ease of use of social networking has the significant influence on the satisfaction of social networking.*

In technology acceptance model, it is considered that ease of use can enhance users' continuance usage behavior (Davis, 1989; Venkatesh et al., 2000). The research also proves the influence of perceived ease of use on continuance usage intention. Furthermore, some researchers apply the concept of perceived ease of use in technology acceptance model to expectation confirmation theory (Bhattacherjee, 2008; Hong et al., 2006; Thong et al., 2006; Lin et al., 2007). Based on the above-mentioned, the researches related to post-acceptance model of IS continuance all prove perceived usefulness has influence on the continuance intention. As a result, we deduct users' perceived ease of use and perceived usefulness will influence on usage intention again. Therefore, the following hypotheses are proposed:

H_7：*Users' perceived usefulness of social networking has the significant influence on continuance intention towards social networking.*
H_8：*Users' perceived ease-of-use of social networking has the significant influence on continuance intention towards social networking.*

According to the concept of post-acceptance model of IS continuance, system's continuance usage intention will be influenced by users' satisfaction with the system and perceived usefulness (Hsu et al., 2006). In turn, satisfaction is affected by perceived usefulness and confirmation, while satisfaction will also influence on perceived usefulness. Bhattacherjee (2001a) studied the continuance usage intention of information system. He pointed out that users' continuance usage intention is mainly resulted from satisfaction gendered after usage in reality. The following hypothesis is therefore proposed:

H_9：*Users' satisfaction of social networking has the significant influence on continuance intention towards social networking.*
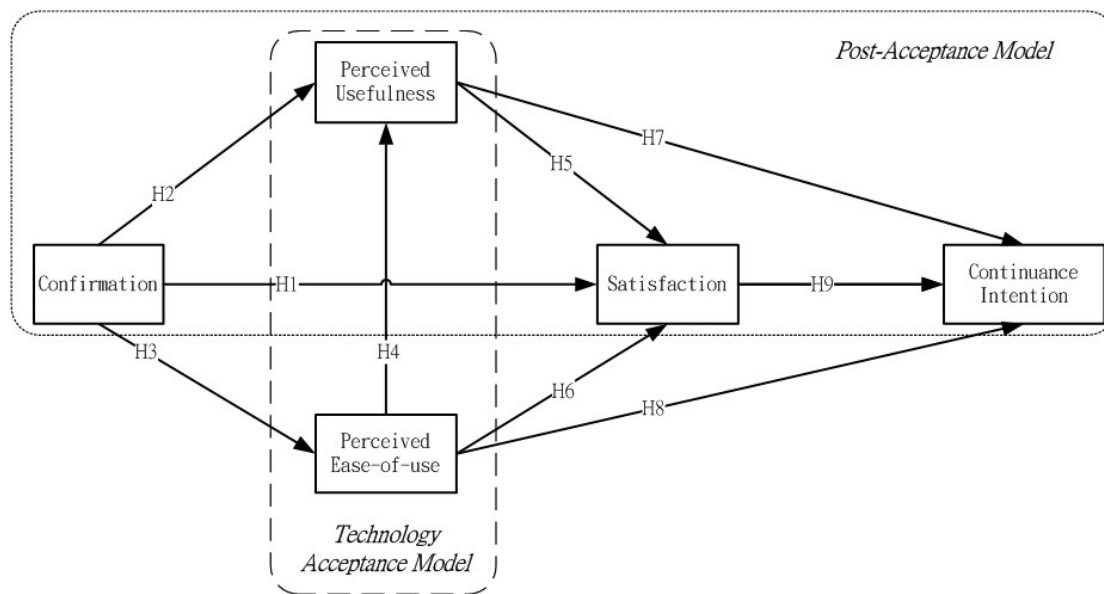

Figure 1: Research Framework

4.   Future Research Directions and Limitations
The research is based on the post-acceptance model of IS continuance provided by Bhattacherjee. It integrates Technology Acceptance Model, and adds Technology readiness index as the moderator to build up a research framework which explores if there are the effects of moderator. This framework analyzes the factors such as perceived usefulness, perceived ease of use, confirm, satisfaction, and continuance intention when users log on the social Network to explore the effects of Technology readiness index to the whole framework. This chapter mainly expresses the result of consumption-examined provided by the research and proceeds the comparison and discussion with the research results of relative reference.

The research is explored in a serious way during the process of making researches and makes use of Internet

Questionnaire to lower the condition of excessive centralizing of samples. However, due to the shortage of time and cost, there are still some limitations.

(1) The research subjects are users of Facebook in Taiwan. Every country has its own different culture. Consequently, the results of this research can be applied to most of Facebook users in Taiwan. As for other countries, the application still needs to be explored.

(2) There is some limitation in the aspects of the research. Many factors affect the users for their continuance intention. The research only explores the system function, interface, expectation and satisfaction of users. However, if we only examine these factors, it's not enough to explore the full mental condition and thinking of users.

(3) For users, Facebook is initiative. It can inform users that they have new responses in their articles or photos by means of e-mails. This makes users send instant messages to each other. This kind of function and users' voluntary use are two sides to one coin. It means that users' continuance intention discussed by this research may be affected by automatic informing messages of Facebook. However, this research is not involved in this part.

(4) This research model is only aimed at free websites of social Network. If it is not a free website of social Network, whether it can be discussed by the same model, the future researcher can focus on this part to explore.

At the present time, another Social Network, Google+, is in a testing stage which positively wants to attract users of Facebook to join in. The social function between Google+ and Facebook are similar in some parts. Google+ presently has no additional entertainment such as mini games or psychological evaluation. If the users evaluate it with the respect to information exchange and communicative messages, such a social Network should have equipped with usefulness measured by the research. Therefore, future researchers can focus on websites of social Network to make comparisons about two topics. The first one is that if people in Taiwan have different preference when they use these two websites of social Network. The second issue: What kind of social Network websites can attract users to keep logging on it.

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